

Claims:

1. A method of performing a medical procedure, comprising:  
accessing a spinal cord using an access method selected from the group consisting of intrathecal access, epidural access, and transcutaneous access;  
stimulating the spinal cord to control at least one physiological function;  
performing the medical procedure; and  
stopping stimulation of the spinal cord.
2. The method of claim 1 further comprising:  
delivering at least one drug during the medical procedure.
3. The method of claim 2 wherein the drug is selected from the group consisting of:  
a beta-blocker, a cholinergic agent, a cholinesterase inhibitor, a calcium channel blocker, a sodium channel blocker, a potassium channel agent, adenosine, an adenosine receptor agonist, an adenosine deaminase inhibitor, dipyridamole, a monoamine oxidase inhibitor, digoxin, digitalis, lignocaine, a bradykinin agent, a serotonergic agonist, an antiarrhythmic agent, a cardiac glycoside, a local anesthetic, atropine, a calcium solution, an agent that promotes heart rate, an agent that promotes heart contractions, dopamine, a catecholamine, an inotrope glucagon, a hormone, forskolin, epinephrine, norepinephrine, thyroid hormone, a phosphodiesterase inhibitor, prostacyclin, prostaglandin and a methylxanthine.
4. The method of claim 2 wherein the drug is naturally occurring
5. The method of claim 2 wherein the drug is chemically synthesized.

6. A system for performing a medical procedure, comprising:
  - a spinal stimulator to control at least one physiological function during the medical procedure;
  - a nerve stimulator in communication with the spinal stimulator to stimulate a nerve; and
  - a cardiac stimulator in communication with the spinal stimulator to stimulate a heart.
7. The system of claim 6 further comprising:
  - drug delivery means for delivering at least one drug during the medical procedure.
8. The system of claim 7 wherein the drug delivery means is selected from the group consisting of:
  - a spray, a cream, an ointment, a medicament, a pill, a patch, a catheter, a cannula, a needle and syringe, a pump, and an iontophoretic drug delivery device.
9. The system of claim 6 wherein the nerve stimulator stimulates a nerve from the group consisting of:
  - vagus nerve fibers, hypoglossal nerve fibers, phrenic nerve fibers, parasympathetic nerve fibers, and sympathetic nerve fibers.
10. The system of claim 6 wherein the nerve stimulator stimulates a nerve from the group consisting of:
  - vagal nerve, a carotid sinus nerve, and a fat pad.
11. The system of claim 6 wherein the spinal stimulator comprises at least one electrode.

12. The system of claim 11 wherein the electrode is selected from the group consisting of:

spinal stimulation electrodes, balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, suction-type electrodes, guided catheters, guided electrodes, steerable catheters, and steerable electrodes.

13. The system of claim 6 wherein the nerve stimulator comprises at least one electrode.

14. The system of claim 13 wherein the electrode is selected from the group consisting of:

nerve stimulation electrodes, endotracheal electrodes, endoesophageal electrodes, intravascular electrodes, transcutaneous electrodes, intracutaneous electrodes, balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, tape-type electrodes, suction-type electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, patch electrodes, cuff electrodes, clip electrodes, needle electrodes and probe electrodes.

15. The system of claim 6 wherein the cardiac stimulator comprises at least one electrode.

16. The system of claim 15 wherein the electrode is selected from the group consisting of:

cardiac stimulation electrodes, clip electrodes, needle electrodes, probe electrodes, pacing electrodes, epicardial electrodes, patch electrodes, intravascular electrodes, balloon-type electrodes, basket-type electrodes, tape-type electrodes, umbrella-type electrodes, suction-type electrodes, endotracheal electrodes, endoesophageal electrodes, transcutaneous electrodes, intracutaneous electrodes, screw-type electrodes, barb-type

electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes and cuff electrodes.

17. A method of delivering a baby comprising the steps of:  
stimulating the spinal cord to control at least one physiological function;  
delivering the baby; and  
stopping stimulation of the spinal cord.

18. The method of claim 17 further comprising:  
delivering at least one drug.

19. The method of claim 17 wherein the spinal cord is stimulated intermittently.

20. The method of claim 19 wherein the spinal cord is stimulated intermittently and the physiological function is pain.

21. A stimulation device comprising:  
a processor;  
a nerve stimulation electrode, the nerve stimulation electrode operatively connected to the processor; and  
a spinal stimulation electrode operatively connected to the processor, wherein the processor processes output from the nerve stimulation electrode and adjusts output from the spinal stimulation electrode based on output from the nerve stimulation electrode.

22. The device of claim 21 wherein the nerve stimulation electrode is selected from the group consisting of:  
endotracheal electrodes, endoesophageal electrodes, intravascular electrodes, transcutaneous electrodes, intracutaneous electrodes, balloon-type

electrodes, basket-type electrodes, umbrella-type electrodes, tape-type electrodes, suction-type electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, patch electrodes, cuff electrodes, clip electrodes, needle electrodes, probe electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, and steerable electrodes.

23. The device of claim 21 wherein the spinal stimulation electrode is selected from the group consisting of:

balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, suction-type electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, steerable electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, needle electrodes, and probe electrodes.

24. The device of claim 21 further comprising:  
a cardiac stimulation electrode operatively connected to the processor, wherein the processor processes output from the nerve stimulation electrode and adjusts output from the cardiac stimulation electrode based on output from the nerve stimulation electrode.

25. The device of claim 24 wherein the cardiac stimulation electrode is selected from the group consisting of:

clip electrodes, needle electrodes, probe electrodes, pacing electrodes, epicardial electrodes, patch electrodes, intravascular electrodes, balloon-type electrodes, basket-type electrodes, tape-type electrodes, umbrella-type electrodes, suction-type electrodes, endotracheal electrodes, endoesophageal electrodes, transcutaneous electrodes, intracutaneous electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, cuff electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, and steerable electrodes.

26. A stimulation device comprising:  
a processor;  
a spinal stimulation electrode, the spinal stimulation electrode operatively connected to the processor; and  
a cardiac stimulation electrode operatively connected to the processor, wherein the processor processes output from the spinal stimulation electrode and adjusts output from the cardiac stimulation electrode based on output from the spinal stimulation electrode.

27. The device of claim 26 wherein the spinal stimulation electrode is selected from the group consisting of:

balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, suction-type electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, steerable electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, needle electrodes, and probe electrodes.

28. The device of claim 26 wherein the cardiac stimulation electrode is selected from the group consisting of:

clip electrodes, needle electrodes, probe electrodes, pacing electrodes, epicardial electrodes, patch electrodes, intravascular electrodes, balloon-type electrodes, basket-type electrodes, tape-type electrodes, umbrella-type electrodes, suction-type electrodes, endotracheal electrodes, endoesophageal electrodes, transcutaneous electrodes, intracutaneous electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, cuff electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, and steerable electrodes.

29. The device of claim 26 further comprising:

a nerve stimulation electrode operatively connected to the processor, wherein the processor processes output from the spinal stimulation electrode and adjusts output from the nerve stimulation electrode based on output from the spinal stimulation electrode.

30. The device of claim 29 wherein the nerve stimulation electrode is selected from the group consisting of:

endotracheal electrodes, endoesophageal electrodes, intravascular electrodes, transcutaneous electrodes, intracutaneous electrodes, balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, tape-type electrodes, suction-type electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, patch electrodes, cuff electrodes, clip electrodes, needle electrodes, probe electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, and steerable electrodes.

31. A stimulation device comprising:

a processor;

a cardiac stimulation electrode, the cardiac stimulation electrode operatively connected to the processor; and

a spinal stimulation electrode operatively connected to the processor, wherein the processor processes output from the cardiac stimulation electrode and adjusts output from the spinal stimulation electrode based on output from the cardiac stimulation electrode.

32. The device of claim 31 wherein the spinal stimulation electrode is selected from the group consisting of:

balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, suction-type electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, steerable electrodes, bipolar

electrodes, monopolar electrodes, metal electrodes, wire electrodes, needle electrodes, and probe electrodes.

33. The device of claim 31 wherein the cardiac stimulation electrode is selected from the group consisting of:

clip electrodes, needle electrodes, probe electrodes, pacing electrodes, epicardial electrodes, patch electrodes, intravascular electrodes, balloon-type electrodes, basket-type electrodes, tape-type electrodes, umbrella-type electrodes, suction-type electrodes, endotracheal electrodes, endoesophageal electrodes, transcutaneous electrodes, intracutaneous electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, cuff electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, and steerable electrodes.

34. The device of claim 31 further comprising:

a nerve stimulation electrode operatively connected to the processor, wherein the processor processes output from the cardiac stimulation electrode and adjusts output from the nerve stimulation electrode based on output from the cardiac stimulation electrode.

35. The device of claim 34 wherein the nerve stimulation electrode is selected from the group consisting of:

endotracheal electrodes, endoesophageal electrodes, intravascular electrodes, transcutaneous electrodes, intracutaneous electrodes, balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, tape-type electrodes, suction-type electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, patch electrodes, cuff electrodes, clip electrodes, needle electrodes, probe electrodes, guided catheter electrodes, guided electrodes, steerable catheter electrodes, and steerable electrodes.



36. A method comprising:  
stimulating a spinal cord to control at least one physiological function;  
stimulating the heart to adjust the beating of the heart; and  
stopping stimulation of the spinal cord.
37. The method of claim 36 further comprising delivering at least one drug.
38. The method of claim 37 wherein the drug is selected from the group consisting of:  
a beta-blocker, a cholinergic agent, a cholinesterase inhibitor, a calcium channel blocker, a sodium channel blocker, a potassium channel agent, adenosine, an adenosine receptor agonist, an adenosine deaminase inhibitor, dipyridamole, a monoamine oxidase inhibitor, digoxin, digitalis, lignocaine, a bradykinin agent, a serotonergic agonist, an antiarrhythmic agent, a cardiac glycoside, a local anesthetic, atropine, a calcium solution, an agent that promotes heart rate, an agent that promotes heart contractions, dopamine, a catecholamine, an inotrope glucagon, a hormone, forskolin, epinephrine, norepinephrine, thyroid hormone, a phosphodiesterase inhibitor, prostacyclin, prostaglandin and a methylxanthine.
39. The method of claim 37 wherein the drug is naturally occurring
40. The method of claim 37 wherein the drug is chemically synthesized.
41. The method of claim 36 wherein the spinal cord is accessed in an access method selected from the group consisting of:  
intrathecal access, epidural access, and transcutaneous access.
42. The method of claim 36 wherein the physiological function is pain.

43. The method of claim 36 wherein the spinal cord is stimulated intermittently.
44. The method of claim 36 wherein the heart is stimulated intermittently.
45. The method of claim 36 further comprising stimulating a nerve to control at least one physiological function.
46. The method of claim 45 wherein the physiological function is a cardiac function.
47. The method of claim 46 wherein the cardiac function is adjusting the beating of the heart.
48. The method of claim 45 wherein the nerve is selected from the group consisting of:  
vagus nerve fibers, hypoglossal nerve fibers, phrenic nerve fibers, parasympathetic nerve fibers, and sympathetic nerve fibers.
49. The method of claim 45 wherein the nerve is selected from the group consisting of:  
vagal nerve, a carotid sinus nerve, and a fat pad.